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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/544,128

08/02/2005

Trevor Burbridge

36-1916

8580

23117

7590

08/19/2008

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901 NORTH GLEBE ROAD, 11TH FLOOR  
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EXAMINER

BENOIT, ESTHER

ART UNIT

PAPER NUMBER

2142

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/544,128	BURBRIDGE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ESTHER BENOIT	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/2/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/10/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-15 are pending in this application.

#### ***Drawings***

2. Figure 1 is objected to under 37 CFR 1.84(o) because it lacks suitable descriptive legends. The applicants are required to provide suitable text labels for each of the blocks in the drawing in addition to the reference numerals already on the figure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Timur Friedman (*Multicast Session Membership Size Estimation*, March 1999)

With respect to claim 1, Friedman discloses transmitting to receivers receiving the multicast a plurality of requests each including a probability parameter, whereby each terminal replies or not with a corresponding probability; (pg. 965, Col. 1, paragraph 5, lines 2-6) counting the number (r) of replies to each request; (pg. 972, Col. 1, paragraph 5, lines 5-8) determining, from the counts and parameters, estimates of the number of receivers; (pg. 966, Col. 1, paragraph 2, “We model...”, lines 1-8) filtering the estimates; (pg. 969, Col. 1, paragraph 1, “Yajnik et al.’s...”, lines 6-8) wherein the method further includes repeatedly computing a new probability parameter to be included, by forecasting, from the counts and parameters, (pg. 966, Col. 1, paragraph 5, “The BTW mechanism...”) a upper bound for the number of receivers and determining therefrom the new probability parameter such that the risk that the number of replies exceeds a predefined threshold is kept below a predefined value (pg. 968, Col. 1, Section D. “Upper Bound on Polling Probability”)

With respect to claim 2, Friedman discloses estimating the maximum audience size corresponding to a predetermined probability of receiving a number of replies equal to that observed, given the probability parameter used; (pg. 969, Col. 2, paragraph 1, “Our algorithm...”) performing said forecasting using said estimated maximum audience size and at least one previous value of said maximum audience size; determining the new probability parameter ( $P(t.\text{sub}.i+1)$ ) that, with the forecast maximum size, would involve the risk of the number of replies exceeding the capacity available to receive them falling below a predetermined risk threshold (pg. 968, Col. 1, Section D., paragraph 1)

With respect to claim 3, Friedman discloses a method including generating a filtered version of the estimated maximum sizes, prior to said forecasting (pg. 969, Col. 1, paragraph 1, “Yajnik et al.’s...”, lines 6-8)

With respect to claim 4, Friedman discloses a method in which the filtering of the estimated maximum sizes is performed by a Wiener filter (pg. 969, Col. 1, paragraph 1, “Yajnik et al.’s...”, lines 6-8)

With respect to claim 5, Friedman discloses a method including adaptively adjusting the parameters of said filtering of the estimated maximum sizes in dependence on the power spectrum of the estimates (pg. 970, Col. 2, paragraph 2, “This section...”, lines 9-11)

With respect to claim 6, Friedman discloses a method in which the forecasting is performed by extrapolating past values of the estimated maximum size (pg. 970, Col. 2, paragraph 2, "This section...", lines 9-11)

With respect to claim 7, Friedman discloses a method in which said filtering of the estimates is performed by a Wiener filter (pg. 969, Col. 1, paragraph 1, "Yajnik et al.'s...", lines 6-8)

With respect to claim 8, Friedman discloses a method including adaptively adjusting the parameters of said filtering of the estimates as a function of the power spectrum of past values of the estimates (pg. 970, Col. 2, paragraph 2, "This section...", lines 9-11)

With respect to claim 9, Friedman discloses a method in which said filtering of the estimates is performed after ceasing to determine said estimates (pg. 969, Col. 1, paragraph 1, "Yajnik et al.'s...", lines 6-8)

With respect to claim 10, Friedman discloses a method in which said filtering of the estimates is performed each time a new estimate is determined (pg. 969, Col. 1, paragraph 1, "Yajnik et al.'s...", lines 6-8)

With respect to claim 11, Friedman discloses a method in which said filtering of the estimates is performed each time a new estimate is determined and in which the same filter parameters are used for the filtering of the estimates and the filtering of the maximum estimated sizes (pg. 969, Col. 1, paragraph 1, "Yajnik et al.'s...", lines 6-8)

With respect to claim 12, Friedman discloses a method including measuring the probability of loss of requests or replies and applying a correction to the first estimated size (pg. 968, Col. 2, Section F., Paragraph 2, lines 11-13)

With respect to claim 13, Friedman discloses transmitting to receivers receiving the multicast a plurality of requests each including a probability parameter (P), whereby each terminal replies or not with a corresponding probability; (pg. 965, Col. 1, paragraph 5, lines 2-6) counting the number (r) of replies to each request; (pg. 972, Col. 1, paragraph 5, lines 5-8) determining from the count a new probability parameter (pg. 966, Col. 1, paragraph 2, "We model...", lines 1-8)

With respect to claim 14, Friedman discloses transmitting to receivers receiving the multicast a plurality of requests each including a probability parameter (P), whereby each terminal replies or not with a corresponding probability; (pg. 965, Col. 1, paragraph 5, lines 2-6) counting the number (r) of replies to each request; (pg. 972, Col. 1, paragraph 5, lines 5-8) determining, from the counts and parameters, estimates of the number of receivers; (pg. 966, Col. 1, paragraph 2, "We model...", lines 1-8) filtering the estimates; (pg. 969, Col. 1, paragraph 1, "Yajnik et al.'s...", lines 6-8) wherein the method further includes repeatedly computing a new probability parameter, by forecasting, from the counts and parameters, (pg. 966, Col. 1, paragraph 5, "The BTW mechanism...") a upper bound for the number of receivers and determining therefrom the new probability parameter (pg. 968, Col. 1, Section D. "Upper Bound on Polling Probability")

With respect to claim 15, Friedman discloses transmitting to receivers receiving the multicast a plurality of requests each including a probability parameter (P), whereby each terminal replies or not with a corresponding probability; (pg. 965, Col. 1, paragraph 5, lines 2-6) counting the number (r) of replies to each request; (pg. 972, Col. 1, paragraph 5, lines 5-8) determining, from the counts and parameters, estimates of the number of receivers; (pg. 966, Col. 1, paragraph 2, "We model...", lines 1-8) filtering the estimates; (pg. 969, Col. 1, paragraph 1, "Yajnik et al.'s...", lines 6-8) including adaptively adjusting the parameters of said filtering of the estimates as a function of the power spectrum of past values of the estimates (pg. 970, Col. 2, paragraph 2, "This section...", lines 9-11)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esther Benoit whose telephone number is 571-270-3807. The examiner can normally be reached on Monday through Friday between 7:30 a.m and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2142

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.B.

August 13, 2008

/Glenton B. Burgess/

Supervisory Patent Examiner, Art Unit 2153